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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/541,242	BAE ET AL.	
	Examiner	Art Unit	
	MICHAEL T. THIER	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 May 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8-15 and 18-25* is/are rejected.

7)☒ Claim(s) *7,16 and 17* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-25 have been fully considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-5, 8-15, and 18-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gustavsson et al. (US 2002/0068564) in view of Glazko et al. (US 2008/0125168) in further view of McClure (US 7340251).

Regarding claim 1. Gustavsson teaches a system for preventing a call drop from occurring between a CDMA 2000 1xEV-DO (Evolution-Data Optimized) system and a hybrid access terminal in traffic with the CDMA 2000 1xEV-DO system, by limiting a predetermined search time for a 1X system (title, abstract and figure 1), the system comprising:

the hybrid access terminal (figure 1 item 110, par. 28) operated in a 1X mode in relation to the 1X system for receiving a voice signal transmission service or a low-rate data transmission service from the 1X system (figure 1 item 101) and in a 1xEV-DO

mode in relation to the 1xEV-DO system for receiving a high-rate data transmission service from the 1xEV-DO system (figure 1 item 102), the hybrid access terminal in traffic with the 1xEV-DO system being periodically switched into the 1X mode so as to update overhead messages and returned to the 1xEV-DO mode (par. 9-11, further par. 33-34);

a base station transceiver subsystem including a 1xEV-DO access network transceiver for transmitting/receiving packet data to/from the hybrid access terminal (figure 1 items 120 and 130, par. 28) and a 1X transceiver for transmitting/receiving voice or data to/from the hybrid access terminal (figure 1 items 125 and 131, par. 29);

a base station controller including a 1xEV-DO access network controller for controlling a packet data transmission service of the 1xEV-DO access network transceiver (figure 1 item 135, par. 28) and a 1X controller for controlling a transmission service of the 1X transceiver (figure 1 item 136, par. 29));

and a packet data serving node (PDSN) connected to the 1xEV-DO access network controller so as to transmit/receive the packet data to/from the 1xEV-DO system (figure 1 item 155, par. 28).

However, he does not specifically disclose the idea of switching back to the 1xEV-DO mode if a predetermined search time lapses. The examiner would like to note that the use of timers in this manner is well known in the wireless communications art and would have been obvious to one of ordinary skill in the art at the time of invention. The examiner is providing the following Glazko reference for clarity and to show the obviousness of the use of such timers in a dual mode device.

Glazko teaches a system and method for timing transitions between wireless communication systems (title and abstract). He teaches the idea of switching between a HDR (high data rate) system and a 1x system (par. 16). He further teaches in par. 39 that the WCD 6 (i.e. the hybrid access terminal shown in the figures) returns from the 1x system (i.e. returns back from the 1x system to the HDR system) after expiration of a timer. (i.e. and thus after a predetermined time lapses).

Therefore it would have been obvious for one of ordinary skill in the art at the time of invention to utilize the teachings of Glazko with the teachings as in Gustavsson. The motivation for doing so would have been to allow for a method and system that facilitates interoperability between wireless communication systems by using timers to assist is monitoring the systems. (Glazko par. 16)

However, Gustavsson and Glazko do not specifically disclose that the after the expiration of the timer the system is forced to return, regardless of whether or no the 1x system is detected.

McClure teaches a scanning guard timer (title and abstract). He teaches in column 6 lines 21-25 the idea that a mobile station is forced to return to a first station after the expiration of a timer. This "forcing" of a transition upon expiration of a timer, when combined with the system and timer as in the combination of Gustavsson and Glazko, clearly teaches the limitations as claimed, and would thus allow for "forcing" the terminal to return regardless of whether or not the 1x system in detected, i.e. the idea of "forcing" the mobile to switch back, thus means it switches back regardless of what happens on the channel it is scanning.

Therefore it would have been obvious for one of ordinary skill in the art at the time of invention to utilize the teachings of McClure with the teachings as in the combination of Gustavsson and Glazko. The motivation for doing so would have been to allow for a method and system that causes a mobile to switch back to a registered system so no transmitted data is missed. (McClure column 6 lines 57-59)

Regarding claim 2. Gustavsson and Glazko further teach wherein the predetermined search time (Glazko par. 39) is a time required for updating the overhead messages used for a location register and a call request in the 1X system after the hybrid access terminal in traffic with the 1xEV-DO system is switched into the 1X mode. (Gustavsson par. 34)

Regarding claim 3. Glazko further teaches wherein the hybrid access terminal stops a search for the 1X system if a time for switching the hybrid access terminal into the 1X mode reaches the predetermined search time and returns to the 1x EV-DO mode. (par. 39)

Regarding claim 4. Gustavsson further teaches wherein the hybrid access terminal is set to the 1X mode in an idle state thereof in order to make communication with the 1X system and is periodically switched into the 1xEV-DO mode in a predetermined period of time so as to check whether or not data are received through the 1xEV-DO system and returns to the 1X mode. (par. 11, i.e. it is explained as merely an example in par. 11 that the system can "camp" on the HDR channel and switch to the packet switched channel and then go back to the HDR, however, this is an example and it is clear from par. 11 that the network it camps on can be either of the two.)

Regarding claim 5. Gustavsson further teaches wherein the hybrid access terminal receiving high-rate data from the 1xEV-DO system in the 1xEV-DO mode is periodically switched into the 1X mode in a predetermined period of time so as to check whether or not signals are received through the 1X system and returns to the 1xEV-DO mode. (par. 11)

Regarding claim 9. Although Gustavsson and Glazko do not specifically disclose wherein the forward link includes a pilot channel used for transmitting a pilot signal allowing the 1xEV-DO system to track the hybrid access terminal, a MAC (medium access control) channel used for controlling the reverse link, a control channel used for transmitting a broadcast message or a direct message for directly controlling a specific hybrid access terminal from the 1xEV-DO system to the hybrid access terminal, and a traffic channel used for transmitting only packet data from the 1xEV-DO system to the hybrid access terminal, the examiner would like to note that the use of pilot channels, MAC channels, control channels, and traffic channels in the manner as claimed is extremely well known in the wireless communications art. The examiner therefore takes official notice on the limitations of all the claimed channels since they would have been obvious to one of ordinary skill in the art at the time of invention.

Regarding claim 10. Gustavsson further teaches a mobile switching center for providing a communication access route of the 1X system with respect to a communication call transmitted from the hybrid access terminal by switching the communication access route. (figure 1 item 140)

Regarding claim 11. Gustavsson teaches method for preventing a call drop

from occurring between a CDMA 2000 1xEV-DO (Evolution-Data Optimized) system and a hybrid access terminal in traffic with the CDMA 2000 1xEV-DO system, by limiting a predetermined search time for a 1X system (title, abstract, and figure 1), the method comprising the steps of:

(a) sequentially initializing a 1X mode and a 1xEV-DO mode of the hybrid access terminal such that the hybrid access terminal stays in an idle state (par. 9-11, i.e. "camp" reads on idle state, further par. 33);

(b) alternately and periodically performing monitoring with respect to the 1X system and the 1xEV-DO by using the hybrid access terminal in a state that the hybrid access terminal stays in the idle state (par. 11, i.e. terminal will periodically switch between the networks, further par. 33-34);

(c) allowing the hybrid access terminal to enter a traffic state of the 1xEV-DO mode such that a connection and a session are formed between the hybrid access terminal and the 1xEV-DO system, thereby enabling the hybrid access terminal to transmit/receive packet data to/from the 1xEV-DO system (par. 12, i.e. the user can engage in packet data communications, further par. 33);

(d) switching the hybrid access terminal into the 1X mode (par. 11, further par 33);

(e) detecting signals of the 1X system when the hybrid access terminal is switched into the 1X mode (par. 11, i.e. scans or polls the channel, further par. 33-34); and

(f) allowing the hybrid access terminal to return to the 1xEV-DO mode. (par. 34)

However, Gustavsson does not specifically disclose the use of timers to allow for switching into 1x mode is a predetermined monitoring time lapses, or the idea to check a switching time and if the switching time reaches a predetermined return start time to allow the terminal to return to the 1xEV-DO mode. The examiner would again like to note that the use of timers in this manner is very well known in the wireless communications art, and would have been obvious to one of ordinary skill in the art at the time of invention. For further clarity on this obviousness, the Glazko reference is provided below.

Glazko teaches a system and method for timing transitions between wireless communication systems (title and abstract). He teaches the idea of switching between a HDR (high data rate) system and a 1x system (par. 16). He further teaches in par. 39 that the WCD 6 (i.e. the hybrid access terminal shown in the figures) returns from the 1x system (i.e. returns back from the 1x system to the HDR system) after expiration of a timer. (i.e. and thus checking a switching time and returning the terminal after the switching time reaches a predetermined time). He does not specifically disclose the idea of the timer to determine when the terminal switches to the 1x mode, only the use of a timer to switch back from the 1x mode, however, this idea would have been obvious in view of the reference and its use of a plurality of timers for different situations.

Therefore it would have been obvious for one of ordinary skill in the art at the time of invention to utilize the teachings of Glazko with the teachings as in Gustavsson. The motivation for doing so would have been to allow for a method and system that facilitates interoperability between wireless communication systems by using timers to

assist is monitoring the systems. (Glazko par. 16)

However, Gustavsson and Glazko do not specifically disclose that the after the expiration of the timer the system is forced to return, regardless of whether or no the 1x system is detected.

McClure teaches a scanning guard timer (title and abstract). He teaches in column 6 lines 21-25 the idea that a mobile station is forced to return to a first station after the expiration of a timer. This "forcing" of a transition upon expiration of a timer, when combined with the system and timer as in the combination of Gustavsson and Glazko, clearly teaches the limitations as claimed, and would thus allow for "forcing" the terminal to return regardless of whether or not the 1x system in detected, i.e. the idea of "forcing" the mobile to switch back, thus means it switches back regardless of what happens on the channel it is scanning.

Therefore it would have been obvious for one of ordinary skill in the art at the time of invention to utilize the teachings of McClure with the teachings as in the combination of Gustavsson and Glazko. The motivation for doing so would have been to allow for a method and system that causes a mobile to switch back to a registered system so no transmitted data is missed. (McClure column 6 lines 57-59)

Regarding claim 12. Gustavsson further teaches wherein, in step (a), the hybrid access terminal initializes the 1xEV-DO mode by using system parameters obtained when initializing the 1X mode. (figure 4 shows that the terminal registers with the 1x mode prior to the 1xEV-DO, thus reading on the idea of it using system parameters obtained when initializing the 1x mode to initialize the 1xEV-DO mode.)

Regarding claim 13. Glazko further teaches wherein, in step (d), the predetermined monitoring time is 5.12 seconds, which is counted after the hybrid access terminal is switched into the 1xEV-DO mode. (par. 39, the timer can be 5.12 seconds)

Regarding claim 14. Glazko further teaches wherein, in step (e), the predetermined return start time is the switching time at which the hybrid access terminal switched into the 1X mode so as to detect the signals of the 1X system starts to return to the 1xEV-DO mode. (par. 39)

Regarding claim 15. Gustavsson further teaches wherein, in step (e), the predetermined return start time is shorter than a call drop time required for the call drop between the hybrid access terminal and the 1xEV-DO system. (par. 33, i.e. the terminal can switch from the packet data communications to check the other communication network, then returns and resumes the packet communication, thus it has returned prior to the call being dropped. This idea when used with the timers of Glazko teaches the limitations as claimed.)

Regarding claim 18. Gustavsson further teaches wherein, in step (e), the hybrid access terminal stores the overhead messages received therein while detecting the 1X system in a predetermined memory. (par. 50 i.e. voice calls can be stored in a voice mail)

Regarding claims 8 and 19. Gustavsson further teaches wherein, in step (f), an operation of allowing the hybrid access terminal to return to the 1xEV-DO mode is performed through a searcher module, which tracks frequencies used in the 1xEV-DO

system under a control of an MSM chip accommodated in the hybrid access terminal. (par. 11, i.e. the terminal "scans or polls" the circuit switched network periodically, which reads on tracking frequencies)

Regarding claim 20. Gustavsson further teaches wherein the hybrid access terminal uses the essential overhead messages received and stored during a previous search of the 1X system for a next search of the 1X system. (par. 50, i.e. the terminal can then temporarily turn to carrier 125 to receive any voice pages, thus being received during the search following the search from which they are stored.)

Regarding claim 21. Gustavsson and Glazko do not explicitly disclose wherein the overhead messages include at least one of a system parameter message, an access parameter message, an extended system parameter message, a neighbor list parameter message, and a channel 1st parameter message, however the examiner would like to note that these types of messages (i.e. system parameter, access parameter, etc.) are extremely well known in the art and would have been obvious to one of ordinary skill in the art at the time of invention. The examiner therefore takes official notice on the limitations of this claim.

Regarding claim 22. Gustavsson teaches hybrid access terminal for preventing a call drop from occurring between a CDMA 2000 1xEV-DO (Evolution-Data Optimized) system and the hybrid access terminal in traffic with the CDMA 2000 1xEV-DO system, (title, abstract, and figure 1) the hybrid access terminal comprising:

a searcher module configured to track and convert frequencies so as to perform the switching of the hybrid access terminal between the 1X mode and the 1xEV-DO

mode, and receiving overhead messages (par. 9-11, further par. 33-34);

a finger module configured to demodulate the overhead messages received from the searcher module (figure 3 item 304); and

a mobile station modem (MSM) (figure 3) chip configured to alternately and periodically search the 1xEV-DO system and the 1X system (par. 9-11, further par. 33-34).

However, Gustavsson does not specifically disclose the use of timers to allow for measuring a switching time when the hybrid access terminal is switched from the 1xEV-DO mode to the 1X mode, and allow for the need to create a return control signal if a return start signal is received and provide the searcher module with the return signal.

Glazko teaches a system and method for timing transitions between wireless communication systems (title and abstract). He teaches the idea of switching between a HDR (high data rate) system and a 1x system (par. 16). He further teaches in par. 39 that the WCD 6 (i.e. the hybrid access terminal shown in the figures) returns from the 1x system (i.e. returns back from the 1x system to the HDR system) after expiration of a timer. (i.e. and thus measuring a switching time when the terminal is switched between modes). He does not specifically state the use o a control signal to provide a return signal to the searcher when the timer has expired (i.e and thus the return start signal is received), however, there must be some type of control signal sent in order for the device to switch back upon expiration of the timer. The use of these types of control signals with timers is very well known in the art and would have been obvious to one of ordinary skill in the art when viewing the references provided.

Therefore it would have been obvious for one of ordinary skill in the art at the time of invention to utilize the teachings of Glazko with the teachings as in Gustavsson. The motivation for doing so would have been to allow for a method and system that facilitates interoperability between wireless communication systems by using timers to assist is monitoring the systems. (Glazko par. 16)

However, Gustavsson and Glazko do not specifically disclose that the after the expiration of the timer the system is forced to return, regardless of whether or no the 1x system is detected.

McClure teaches a scanning guard timer (title and abstract). He teaches in column 6 lines 21-25 the idea that a mobile station is forced to return to a first station after the expiration of a timer. This "forcing" of a transition upon expiration of a timer, when combined with the system and timer as in the combination of Gustavsson and Glazko, clearly teaches the limitations as claimed, and would thus allow for "forcing" the terminal to return regardless of whether or not the 1x system in detected, i.e. the idea of "forcing" the mobile to switch back, thus means it switches back regardless of what happens on the channel it is scanning.

Therefore it would have been obvious for one of ordinary skill in the art at the time of invention to utilize the teachings of McClure with the teachings as in the combination of Gustavsson and Glazko. The motivation for doing so would have been to allow for a method and system that causes a mobile to switch back to a registered system so no transmitted data is missed. (McClure column 6 lines 57-59)

Regarding claim 23. Glazko further teaches wherein the timer creates the

return start signal if the measured switching time reaches the predetermined return start time to deliver the return start signal to the MSM chip. (par. 39, i.e. the WCD 6 (i.e. the hybrid access terminal shown in the figures) returns from the 1x system (i.e. returns back from the 1x system to the HDR system) after expiration of a timer. (i.e. and thus the measured switching time has reached the predetermined time, and a signal must be delivered in order for the terminal to switch back).

Regarding claim 24. Gustavsson further teaches wherein the hybrid access terminal searches frequencies used in the 1X system or 1xEV-DO system according to a predetermined monitoring period so as to be operated in the 1X mode or 1xEV-DO mode. (par. 11, i.e. the terminal "scans or polls" the circuit switched network periodically, which reads on a predetermined monitoring period)

Regarding claim 25. Gustavsson and Glazko further teach wherein the MSM chip has information about the return start time, and checks the switching time measured by the timer to create and deliver the return control signal if the switching time reaches the return start time. (par. 11 of Gustavsson and 39 of Glazko, i.e. the terminal switches back when the timer lapses, thus the terminal knows the time in some fashion and must be provided a signal that the timer has lapsed.)

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gustavsson, Glazko, and McClure as applied to claim 1 above, and further in view of Kim et al. (US 6711144).

Regarding claim 6. Gustavsson and Glazko teach the limitations of the

previous claims.

However they do not specifically disclose wherein a TDMA (time division multiple access) method is utilized in a case of a forward link transmitting data from the 1xEV-DO system to the hybrid access terminal, and a CDMA (code division multiple access) method is utilized in a case of a reverse link transmitting data from the hybrid access terminal to the 1xEV-DO system. The examiner would like to note that the idea of using TDMA on the forward link and CDMA on the reverse link is well known in the art with regards to the 1xEV-DO standard, and for further clarity provides the Kim reference below.

Kim teaches a method and system for communication of voice and data (title and abstract). He specifically discloses the idea that in the 1xEV-DO standard the forward link uses TDMA and the reverse link uses CDMA in column 2 lines 43-50.

Therefore it would have been obvious for one of ordinary skill in the art at the time of invention to utilize the teachings of Kim with the teachings as in the combination of Glazko and Gustavsson. The motivation for doing so would have been to allow for achieving a predetermined voice quality of the transmitted signals (column 2 lines 3-4).

Allowable Subject Matter

5. Claims 7, 16, and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL T. THIER whose telephone number is (571)272-2832. The examiner can normally be reached on Monday thru Friday 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MICHAEL T THIER/
Examiner, Art Unit 2617
6/24/2009

/Patrick N. Edouard/
Supervisory Patent Examiner, Art Unit 2617